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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,118	08/28/2003	Aubrey R. Thoede	004082.000002	7849
7590 12/02/2004			EXAMINER	
BRACEWELL & PATTERSON, L.L.P.			COHEN, AMY R	
Attention: James E. Bradley			ART UNIT	
P.O. Box 61389			PAPER NUMBER	
Houston, TX 77208-1389			2859	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/651,118

Applicant(s)

THOEDE ET AL.

Examiner

Amy R Cohen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 6, 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mouw et al. (U. S. Patent No. 6,026,539).

Mouw et al. teaches a detector (84) for mounting to an air filter (62, 78), comprising: a housing (66) adapted to be mounted to the filter (Col 7, lines 46-60); a pressure responsive element (106) mounted to the housing, the pressure responsive element having an upstream side (side facing 102) adapted to be in communication with air pressure on an upstream side of the filter and a downstream side (side facing 104) adapted to be in communication with air pressure on a downstream side of the filter (Figs. 4 and 5), the pressure responsive element being movable in response to a sufficient difference in upstream and downstream pressures from a first position to a second position (Col 6, lines 13-35); a stationary electrical contact (110) mounted in the housing (Figs. 4 and 5); a movable electrical contact (114) mounted to the pressure responsive element (Col 5, lines 50-60), the contacts engaging each other while the pressure responsive element is in one of the positions and disengaging each other while the pressure responsive element is in the other of the positions (Figs. 4 and 5); an electrical circuit connected to the contacts for providing a signal when a change in one of the positions occurs (Col 6, lines 13-35);

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and wherein the pressure responsive element blocks any flow of air through the housing from an upstream side of the housing to a downstream side of the housing (Figs. 4 and 5).

Mouw et al. teaches the detector comprising: a cavity located in the housing (cavity is located between sides 102 and 104 of the housing), the pressure responsive element being located in the cavity (Figs. 4 and 5); an upstream air inlet (92) leading from an upstream side of the housing to the cavity on the upstream side of the pressure responsive element; and a downstream air inlet (94) leading from a downstream side of the housing to the cavity on the downstream side of the pressure responsive element (Figs. 4 and 5).

Mouw et al. teaches the detector wherein the electrical contacts engage each other when the pressure responsive element is in the second position (Figs. 4 and 5 and Col 6, lines 13-35).

Mouw et al. teaches the detector comprising a tube (92) protruding from an upstream side of the housing for communicating air pressure to the pressure responsive element upstream of the filter, the tube adapted to penetrate at least a portion of the filter while the housing abuts the downstream side of the filter (Figs. 2, 4-6, Col 7, lines 30-60).

Mouw et al. teaches the detector wherein the tube has a closed upstream end and a sidewall containing a port adjacent the upstream end (Fig. 2 and Col 5, lines 26-47).

Mouw et al. teaches a method of detecting a condition of an air filter, comprising: (a) mounting in a housing (84) a movable pressure responsive element (106), a stationary electrical contact (110), and a movable electrical contact (114), the movable contact being mounted to the pressure responsive element for movement between a first position in which the contacts are in disengagement with each other and a second position in engagement with each other (Col 5, lines 15-60); then (b) mounting the housing to the filter (Col 7, lines 46-60); (c) flowing air through

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the filter (Col 7, lines 46-60); (d) communicating air pressure on an upstream side of the filter to one side of the pressure responsive element, and communicating air pressure on a downstream side of the filter to the other side of the pressure responsive element, and causing the pressure responsive element and the movable contact to move if a difference between the air pressures is sufficient (Col 6, lines 13-35); (e) once the difference in air pressures reaches a sufficient level, causing the contacts to change from one of the first and second positions to the other of the first and second positions (Col 6, lines 13-35); (f) monitoring the change in the positions of the contacts with an electrical circuit and providing a signal when the change occurs (Col 6, lines 13-35); and (g) preventing any air flow from an upstream side to a downstream side of the housing during steps (c)-(f) (Figs. 4 and 5).

Mouw et al. teaches the method wherein in step (d) when the sufficient pressure difference occurs, the contacts will move from the first to the second position (Figs. 4 and 5 and Col 6, lines 13-35).

Mouw et al. teaches the method wherein the pressure responsive element blocks any air flow from flowing from the upstream side to the downstream side of the housing (Figs. 4 and 5).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mouw et al. in view of Mayer (U. S. Patent No. 4,040,042).

Mouw et al. discloses the detector as described above in paragraph 2.

Mouw et al. does not disclose the detector wherein the pressure responsive element is comprised specifically of a thin, plastic film.

Mayer discloses a detector (Fig. 1) wherein the pressure responsive element (19) is comprised specifically of a thin, plastic film (Col 3, lines 19-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that the pressure responsive element of Mouw et al. be of a thin plastic film, as taught by Mayer, since a thin, plastic film would be both flexible and reusable, and Mouw et al. teaches that the pressure responsive element is to be both flexible and reusable (Mouw et al., Col 5, lines 50-52 and Col 7, lines 46-60).

5. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mouw et al. in view of Chrisco (U. S. Patent No. 5,351,035).

Mouw et al. discloses the detector as described above in paragraph 2 and wherein the pressure responsive element is a diaphragm (106); wherein the movable electrical contact comprises a flexible metallic strip (114, Col 6, lines 15-27) mounted flush to the downstream side of the diaphragm (Figs. 4 and 5); wherein the stationary electrical contact comprises a metallic pin (110) extending through a portion of the housing normal to the diaphragm (Col 5, lines 50-60 and Col 6, lines 15-27); wherein the housing comprises a body having a central recess formed therein; an upstream plate secured to the body over the central recess, defining the cavity, the upstream inlet extending through the upstream plate, the diaphragm having a

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perimeter mounted to a downstream side of the upstream plate; and wherein at least a portion of the downstream air inlet extends through the body (Figs. 2 and 6, Col 7, lines 7-29); a downstream plate secured to the body opposite the upstream plate, at least a portion of the downstream air inlet being formed in the downstream plate (Figs. 2 and 6, Col 7, lines 7-29).

Mouw et al. does not disclose the detector wherein the detector is mounted to an air filter, which is mounted in a ventilation duct.

Chrisco discloses a detector (10) wherein the detector is mounted to an air filter, which is mounted in a ventilation duct (Figs. 1 and 3, Col 2, lines 8-11 and Col 2, lines 43-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the detector of Mouw et al. to be used to monitor the pressure difference in an air filter of a ventilation duct, as taught by Chrisco, since the detector of Mouw et al. and the detector of Chrisco both measure the pressure difference in an air flow system, therefore, the detector of Mouw et al., could be used in a ventilation system of Chrisco.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

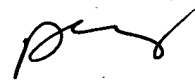
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC

November 29, 2004



Diego Gutierrez  
Supervisory Examiner  
Tech Center 2800